

4. *A Cost Model Should Have Flexibility.*

Ameritech concurs that generally cost models should be flexible enough to correctly reflect expected costs under all relevant scenarios the model is asked to address. To this end, it is the modeler's responsibility in his or her overall documentation to demonstrate why a default value was selected and what the sensitivity of the model is to changes. An abundance of changeable values does not help model users who may lack the time, knowledge, or resources to correct and program each value. Models should be correctly specified rather than burdening the user with the dubious "capability" to change them

5. *Proxy Models Cannot Necessarily Be Valid For Multiple Objectives.*

The last proposed criterion (that models should support multiple objectives) is a policy objective promoting administrative efficiency more than it is a criterion for measuring the validity of a cost model. Ameritech agrees that in theory it is more administratively efficient to use the same cost model for several purposes. However, in no case should accuracy be sacrificed in the name of efficiency. To this end, anytime a proxy is used for a new or modified purpose, it should first be re-validated for that application.

The Staff Analysis proposes that the cost proxy model may bear on the issues of:

1. Determining the size of the universal service fund.
2. Determining where the universal funds should be disbursed.
3. Determining access and interconnection prices.
4. Determining unbundled element prices.

For the reasons discussed earlier, Ameritech does not believe that the cost proxy models should be used to set prices, and therefore believes that the cost proxy models should be used solely for universal service funding purposes.

In principal, Ameritech believes that the size of the universal service fund and disbursement from it should reflect actual costs.¹¹ However, because data based upon actual experience with the fund is not yet available, temporary use of the cost proxy models may be justified. However, as stated earlier, the Commission should recognize that use of a model based upon forward-looking costs will produce estimated costs that are below what will likely be experienced by real carriers. For that reason, the models must be corrected to reflect expected actual costs, and as actual data become available, further refinements should be made. However, in the long term the Commission should consider other alternatives to determining distributions from the fund, such as competitive bidding, that do not depend on cost models.

¹¹ Such funds should be made available to the extent necessary only to those firms serving high-cost areas and bearing carrier-of-last-resort responsibilities.

C. *Ameritech's Proposed Criteria For Validating The Cost Proxy Models.*

Ameritech believes that objective testing against independent evidence is the primary basis for evaluating cost proxy models. However, the criteria proposed by the Staff Analysis and described in the Public Notice mix policy objectives with validation of the model itself. Ameritech proposes that these two objectives be separated. To that end, Ameritech submits the following alternative criteria which exclusively focus on evaluating the validity of a cost proxy model. The following criteria implement the suggestions Ameritech has made throughout its Comments.

1. Does the model accurately reflect all relevant inputs?
2. Is the model internally consistent and based on sound economic theory?
3. Are all of the model's assumptions reasonable?
4. Is the model open and understandable?
5. When tested against the full range of possible inputs, are the proxy's results logical and consistent with experience?
6. Does the model's output comport with the best available independent public and private data?

IV. *The Models Are Flawed And Have Not Been Validated.*

Ameritech agrees with the Commission Staff that the models have serious flaws, and that none of them thus far adequately addresses the questions posed by the Commission Staff. Any proxy model is only as good

as its underlying structure, assumptions, and inputs. As with any model, certain assumptions and inputs have a greater impact on the output than others (e.g. depreciation rates, capital structure, fill factors, expense levels). However, all of the inputs are important and must be thoroughly verified before any proxy model can be used for even universal service purposes. Beyond that, Ameritech has the following specific observations.

A. *Existing Wire Center Approach is Best.*

Cost proxy models need at least one point of contact with reality.

The “scorched node” assumption of use of existing fixed wire center locations provides that point of contact (although an inadequate one) for the cost proxy models. However, ultimately the “scorched node” approach will not satisfactorily model the costs of both the incumbent and the new entrant where new entrants do not use the incumbent LEC’s network configuration. For example, new entrants may place switches where they can optimally serve portions of multiple existing wire centers, even though the resulting wire centers do not mirror those of the incumbent. A proxy model that assumes the existing wire center locations may not therefore accurately estimate the costs of a new entrant that does not adopt the same wire center boundaries. On the other hand, a model that assumes some other network topology may not accurately estimate actual cost of incumbent LECs, and has the further disadvantage of being wide open to

speculation. Thus, it may be infeasible for a single proxy model to accurately predict the cost of both incumbents and new entrants.

The FCC is also correct in noting that the use of wireless technology needs to be considered. Currently, none of the models do an adequate job of modeling wireless technology, and are not useful for that purpose.

B. The Geographic Unit of Analysis Should Reflect Cost Characteristics.

There are tradeoffs between the level of disaggregation in a model and the accuracy of the model. On the one hand, finer units of geography tend to mitigate against errors that occur when costs are not uniformly distributed throughout a geographic area (as each of the models assume). On the other hand, accurately forecasting demand for small geographic areas is very problematic. Errors in demand estimation will lead to errors in network requirements, thus either over or under estimating costs. The key is to predict demand at the same level of disaggregation as costs vary between geographic areas. None of the models are currently able to do so with sufficient accuracy.

C. The Models Should Reflect Demand for All Relevant Services.

The Commission Staff is correct in noting that, with any of the proxy models, there are problems with estimating business versus residence line demand. Ameritech agrees that accurate estimates of business and

residence line demand are important, since fill factors differ between business and residence, and business loop lengths tend, on average, to be shorter than residence.

Ameritech believes that cost proxy models should reflect total demand for all relevant services, since many network facilities are shared. Thus, capturing demand for all relevant services is essential to capturing the economies of scope in the network. To that end, even if only residence and single line business lines are being supported, it is important to know what demand will arise for multiple business lines, since these lines will share distribution and switching facilities, and thereby impact the cost of residence and single line business lines.

D. The Proxy Models Assumptions Must Be Consistent With Reasonable Quality Standards.

It is equally as important that any proxy model reflect inputs and assumptions that capture all the costs of providing service at required levels of quality. For example, fill factors must be estimated at levels necessary to support prompt response to requests for new service and repair; the default prices chosen for cable, fiber, and other loop-related facilities, such as drops, pedestals, and network interface devices must be equal to the actual market prices of those inputs; and a realistic mix of aerial, buried and underground cable and the appropriate amount of structure sharing must be assumed in the model.

V. Conclusion.

For the above reasons, Ameritech recommends that the Commission correct and validate the proposed cost models and then use them to identify areas that should be eligible for disbursements from the universal service fund. If the proxy models are used to quantify and disburse funds, at most they should only be used on an interim basis and the model output should be corrected upward to reflect actual expected costs. However, in no case should the cost models be used to set prices, since the models do not estimate actual costs and do not in any way duplicate the dynamics of a competitive market. In fact, setting prices at levels produced by the models will stifle competition and network investment.

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CERTIFICATE OF SERVICE

I, Edith Smith, do hereby certify that a copy of the foregoing Comments of Ameritech to Further Notice of Proposed Rulemaking has been served on the parties on the attached service list, via first class mail, postage prepaid, on this 8th day of August, 1997.

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